

Rural Water Quality Advisory Program Groundwater Test Suite

Drinking Water Quality Standards and Objectives

Hydroxide mg/L ng Magnesium mg/L 200 Aesthetic C pH pH units 6.5 to 9.0 Aesthetic C Potassium mg/L ng Sodium mg/L 300 Aesthetic C Specific Conductivity us/cm ng Sulphate mg/L 500 Aesthetic C Sum of lons mg/L 500 Aesthetic C Sum of lons mg/L 500 Aesthetic C Total Alkalinity mg/L 500 Aesthetic C Total Hardness mg/L 800 Aesthetic C Nitrate mg/L 45 Maximum Acceptable Conce Organic Carbon, Dissolved mg/L <5 mg/L Recom Aluminum mg/L 10 Maximum Acceptable Conce Barium mg/L 25 Interim Maximum Acceptable Conce Barium mg/L 0.005 Maximum Acceptable Conce Cadmium mg/L 0.05 Maximum Acceptable Conce Cr	Analyte	Units	Objective ¹	Objective Type
Carbonate mg/L ng Chlorides mg/L 250 Aesthetic C Hydroxide mg/L ng Aesthetic C Magnesium mg/L 200 Aesthetic C pH pH units 6.5 to 9.0 Aesthetic C Potassium mg/L ng Aesthetic C Sodium mg/L 300 Aesthetic C Specific Conductivity us/cm ng Sulphate mg/L 500 Aesthetic C Sum of lons mg/L 1,500 Aesthetic C Sum of lons mg/L 500 Aesthetic C Total Alkalinity mg/L 500 Aesthetic C Total Hardness mg/L 800 Aesthetic C Nitrate mg/L 45 Maximum Acceptable Conc Organic Carbon, Dissolved mg/L <5 mg/L	arbonate	mg/L	ng	
Chlorides mg/L 250 Aesthetic C Hydroxide mg/L ng Magnesium mg/L 200 Aesthetic C pH pH units 6.5 to 9.0 Aesthetic C Potassium mg/L ng Sodium mg/L 300 Aesthetic C Specific Conductivity us/cm ng Sulphate mg/L 500 Aesthetic C Sum of lons mg/L 1,500 Aesthetic C Sum of lons mg/L 500 Aesthetic C Sum of lons mg/L 800 Aesthetic C Nitrate mg/L 45 Maximum Acceptable Conce Organic Carbon, Dissolved mg/L 1	cium	mg/L	ng	
Hydroxide mg/L ng Magnesium mg/L 200 Aesthetic C pH pH units 6.5 to 9.0 Aesthetic C Potassium mg/L ng Sodium mg/L 300 Aesthetic C Specific Conductivity us/cm ng Sulphate mg/L 500 Aesthetic C Sum of lons mg/L 1,500 Aesthetic C Sum of lons mg/L 500 Aesthetic C Total Alkalinity mg/L 500 Aesthetic C Total Hardness mg/L 800 Aesthetic C Nitrate mg/L 45 Maximum Acceptable Conc Organic Carbon, Dissolved mg/L 45 Maximum Acceptable Conc Arsenic : g/L 25 Interim Maximum Acceptable Conc Barium mg/L 1.0 Maximum Acceptable Conc Boron mg/L 0.005 Maximum Acceptable Conc Cadmium mg/L 0.05 Maximum Acceptable Conc	bonate	mg/L	ng	
Magnesium mg/L 200 Aesthetic C pH pH units 6.5 to 9.0 Aesthetic C Potassium mg/L ng Sodium mg/L 300 Aesthetic C Specific Conductivity us/cm ng Sulphate mg/L 500 Aesthetic C Sum of lons mg/L 1,500 Aesthetic C Sum of lons mg/L 500 Aesthetic C Total Alkalinity mg/L 500 Aesthetic C Total Hardness mg/L 800 Aesthetic C Nitrate mg/L 45 Maximum Acceptable Conce Organic Carbon, Dissolved mg/L <5 mg/L	orides	mg/L	250	Aesthetic Objective
pH pH units 6.5 to 9.0 Aesthetic C Potassium mg/L ng Sodium mg/L 300 Aesthetic C Specific Conductivity us/cm ng Sulphate mg/L 500 Aesthetic C Sum of lons mg/L 1,500 Aesthetic C Total Alkalinity mg/L 500 Aesthetic C Total Hardness mg/L 800 Aesthetic C Nitrate mg/L 45 Maximum Acceptable Conce Organic Carbon, Dissolved mg/L -5 mg/L Recommendation Aluminum mg/L ng	Iroxide	mg/L	ng	
Potassium mg/L ng Sodium mg/L 300 Aesthetic C Specific Conductivity us/cm ng Sulphate mg/L 500 Aesthetic C Sum of Ions mg/L 1,500 Aesthetic C Total Alkalinity mg/L 500 Aesthetic C Total Hardness mg/L 800 Aesthetic C Nitrate mg/L 45 Maximum Acceptable Conc Organic Carbon, Dissolved mg/L <5 mg/L	gnesium	mg/L	200	Aesthetic Objective
Sodium mg/L 300 Aesthetic C Specific Conductivity us/cm ng Sulphate mg/L 500 Aesthetic C Sum of lons mg/L 1,500 Aesthetic C Total Alkalinity mg/L 500 Aesthetic C Total Hardness mg/L 800 Aesthetic C Nitrate mg/L 45 Maximum Acceptable Conce Organic Carbon, Dissolved mg/L <5 mg/L		pH units	6.5 to 9.0	Aesthetic Objective
Specific Conductivity us/cm ng Sulphate mg/L 500 Aesthetic C Sum of Ions mg/L 1,500 Aesthetic C Total Alkalinity mg/L 500 Aesthetic C Total Hardness mg/L 800 Aesthetic C Nitrate mg/L 45 Maximum Acceptable Conce Organic Carbon, Dissolved mg/L <5 mg/L	assium	mg/L	ng	
Sulphate mg/L 500 Aesthetic C Sum of lons mg/L 1,500 Aesthetic C Total Alkalinity mg/L 500 Aesthetic C Total Hardness mg/L 800 Aesthetic C Nitrate mg/L 45 Maximum Acceptable Conce Organic Carbon, Dissolved mg/L <5 mg/L Recom Aluminum mg/L ng Arsenic : g/L 25 Interim Maximum Acceptable Conce Barium mg/L 1.0 Maximum Acceptable Conce Barium mg/L 5 Interim Maximum Acceptable Conce Cadmium mg/L 0.005 Maximum Acceptable Conce Cadmium mg/L 0.005 Maximum Acceptable Conce Copper mg/L 1.0 Aesthetic C Iron mg/L 0.3 Aesthetic C Iron mg/L 0.01 Maximum Acceptable Conce Manganese mg/L 0.05 Maximum Acceptable Conce Celedium mg/L 0.01 Maximum Acceptable Conce Manganese mg/L 0.01 Maximum Acceptable Conce Manganum mg/L 0.01 Maximum Acceptable Conce	lium	mg/L	300	Aesthetic Objective
Sum of lonsmg/L1,500Aesthetic CTotal Alkalinitymg/L500Aesthetic CTotal Hardnessmg/L800Aesthetic CNitratemg/L45Maximum Acceptable ConcerOrganic Carbon, Dissolvedmg/L<5 mg/L	cific Conductivity	us/cm	ng	
Total Alkalinity mg/L 500 Aesthetic Control Hardness mg/L 800 Aesthetic Control Hardness mg/L 45 Maximum Acceptable Concernic Carbon, Dissolved mg/L <5 mg/L Recommodate Aluminum mg/L ng Arsenic : g/L 25 Interim Maximum Acceptable Concernic Barium mg/L 1.0 Maximum Acceptable Concernic Cadmium mg/L 5 Interim Maximum Acceptable Concernic Cadmium mg/L 0.005 Maximum Acceptable Concernic Cadmium mg/L 0.005 Maximum Acceptable Concernic Concernic Concernic Maximum Maximum Acceptable Concernic Concernic Maximum Maximum Acceptable Concernic Concernic Maximum Maximum Acceptable Concernic Concernic Maximum Maximum Maximum Acceptable Concernic Concernic Maximum Maximum Maximum Acceptable Concernic Maximum Maximum Maximum Acceptable Concernic Maximum Maximum Maximum Acceptable Concernic Maximum Maximum Maximum Acceptable Concernic Maximum Maximum Maximum Acceptab	phate	mg/L	500	Aesthetic Objective
Total Hardness mg/L 800 Aesthetic Contracts mg/L 45 Maximum Acceptable Concernation Corganic Carbon, Dissolved mg/L <5 mg/L Recommendation Recommendation Carbon, Dissolved mg/L concernation Recommendation Carbon, Dissolved mg/L ng ng Arsenic g/L 25 Interim Maximum Acceptable Concernation Recommendation Re	n of lons	mg/L	1,500	Aesthetic Objective
Nitrate mg/L 45 Maximum Acceptable Concernic Carbon, Dissolved mg/L <5 mg/L Recommendation Recom	al Alkalinity	mg/L	500	Aesthetic Objective
Organic Carbon, Dissolved mg/L <5 mg/L Recommendation Aluminum mg/L ng Arsenic : g/L 25 Interim Maximum Acceptable Concered Barium mg/L 1.0 Maximum Acceptable Concered Boron mg/L 5 Interim Maximum Acceptable Concered Cadmium mg/L 0.005 Maximum Acceptable Concered Chromium mg/L 0.05 Maximum Acceptable Concered Copper mg/L 1.0 Aesthetic Concered Iron mg/L 0.3 Aesthetic Concered Lead mg/L 0.01 Maximum Acceptable Concered Manganese mg/L 0.05 Aesthetic Concered Selenium mg/L 0.01 Maximum Acceptable Concered Uranium : g/L 20 Maximum Acceptable Concered	al Hardness	mg/L	800	Aesthetic Objective
Aluminum mg/L ng Arsenic : g/L 25 Interim Maximum Acceptable Conce Barium mg/L 1.0 Maximum Acceptable Conce Boron mg/L 5 Interim Maximum Acceptable Conce Cadmium mg/L 0.005 Maximum Acceptable Conce Chromium mg/L 0.05 Maximum Acceptable Conce Copper mg/L 1.0 Aesthetic Conce Iron mg/L 0.3 Aesthetic Conce Lead mg/L 0.01 Maximum Acceptable Conce Manganese mg/L 0.05 Aesthetic Conce Selenium mg/L 0.01 Maximum Acceptable Conce Uranium : g/L 20 Maximum Acceptable Conce	ate	mg/L	45	Maximum Acceptable Concentration
Arsenic : g/L 25 Interim Maximum Acceptable Conce Barium mg/L 1.0 Maximum Acceptable Conce Boron mg/L 5 Interim Maximum Acceptable Conce Cadmium mg/L 0.005 Maximum Acceptable Conce Chromium mg/L 0.05 Maximum Acceptable Conce Copper mg/L 1.0 Aesthetic Conce Iron mg/L 0.3 Aesthetic Conce Manganese mg/L 0.01 Maximum Acceptable Conce Manganese mg/L 0.05 Aesthetic Conce Selenium mg/L 0.01 Maximum Acceptable Conce Copper mg/L 0.01 Maximum Acceptable Conce Manganese mg/L 0.01 Maximum Acceptable Conce Selenium mg/L 0.01 Maximum Acceptable Conce Copper mg/L 0.01 Maximum Acceptable Conce Manganese mg/L 0.01 Maximum Acceptable Conce Copper mg/L 0.01 Maximum Accep	anic Carbon, Dissolved	mg/L	<5 mg/L	Recommended
Barium mg/L 1.0 Maximum Acceptable Conce Boron mg/L 5 Interim Maximum Acceptable Conce Cadmium mg/L 0.005 Maximum Acceptable Conce Chromium mg/L 0.05 Maximum Acceptable Conce Copper mg/L 1.0 Aesthetic Conce Iron mg/L 0.3 Aesthetic Conce Lead mg/L 0.01 Maximum Acceptable Conce Manganese mg/L 0.05 Aesthetic Conce Selenium mg/L 0.01 Maximum Acceptable Conce Selenium mg/L 0.01 Maximum Acceptable Conce Copper mg/L 0.01 Maximum Acceptable Conce Manganese mg/L 0.01 Maximum Acceptable Conce Selenium mg/L 0.01 Maximum Acceptable Conce	minum	mg/L	ng	
Boron mg/L 5 Interim Maximum Acceptable Conce Cadmium mg/L 0.005 Maximum Acceptable Conce Chromium mg/L 0.05 Maximum Acceptable Conce Copper mg/L 1.0 Aesthetic Conce Iron mg/L 0.3 Aesthetic Conce Lead mg/L 0.01 Maximum Acceptable Conce Manganese mg/L 0.05 Aesthetic Conce Selenium mg/L 0.01 Maximum Acceptable Conce Uranium : g/L 20 Maximum Acceptable Conce	enic	: g/L	25	Interim Maximum Acceptable Concentration ²
Cadmiummg/L0.005Maximum Acceptable ConcentrationChromiummg/L0.05Maximum Acceptable ConcentrationCoppermg/L1.0Aesthetic ConcentrationIronmg/L0.3Aesthetic ConcentrationLeadmg/L0.01Maximum Acceptable ConcentrationManganesemg/L0.05Aesthetic ConcentrationSeleniummg/L0.01Maximum Acceptable ConcentrationUranium: g/L20Maximum Acceptable Concentration	ium	mg/L	1.0	Maximum Acceptable Concentration
Chromium mg/L 0.05 Maximum Acceptable Concentration Copper mg/L 1.0 Aesthetic Concentration Iron mg/L 0.3 Aesthetic Concentration Lead mg/L 0.01 Maximum Acceptable Concentration Manganese mg/L 0.05 Aesthetic Concentration Selenium mg/L 0.01 Maximum Acceptable Concentration Uranium : g/L 20 Maximum Acceptable Concentration	on	mg/L	5	Interim Maximum Acceptable Concentration ³
Copper mg/L 1.0 Aesthetic C Iron mg/L 0.3 Aesthetic C Lead mg/L 0.01 Maximum Acceptable Concerns Manganese mg/L 0.05 Aesthetic C Selenium mg/L 0.01 Maximum Acceptable Concerns Uranium : g/L 20 Maximum Acceptable Concerns	lmium	mg/L	0.005	Maximum Acceptable Concentration
Iron mg/L 0.3 Aesthetic C Lead mg/L 0.01 Maximum Acceptable Conce Manganese mg/L 0.05 Aesthetic C Selenium mg/L 0.01 Maximum Acceptable Conce Uranium : g/L 20 Maximum Acceptable Conce	omium	mg/L	0.05	Maximum Acceptable Concentration
Lead mg/L 0.01 Maximum Acceptable Concentration Manganese mg/L 0.05 Aesthetic Concentration Selenium mg/L 0.01 Maximum Acceptable Concentration Uranium : g/L 20 Maximum Acceptable Concentration	pper	mg/L	1.0	Aesthetic Objective
Manganese mg/L 0.05 Aesthetic C Selenium mg/L 0.01 Maximum Acceptable Conce Uranium : g/L 20 Maximum Acceptable Conce		mg/L	0.3	Aesthetic Objective
Selenium mg/L 0.01 Maximum Acceptable Conce Uranium : g/L 20 Maximum Acceptable Conce	d	mg/L	0.01	Maximum Acceptable Concentration
Uranium : g/L 20 Maximum Acceptable Conce	nganese	mg/L	0.05	Aesthetic Objective
├ -	enium	mg/L	0.01	Maximum Acceptable Concentration
75-2	nium	: g/L	20	Maximum Acceptable Concentration
Zinc mg/L 5.0 Aesthetic C	;	mg/L	5.0	Aesthetic Objective
Fluoride mg/L 1.5 Maximum Acceptable Conc	oride	mg/L	1.5	Maximum Acceptable Concentration
Escherichia Coliform Bacteria ct/100 mL 0 Maximum Acceptable Conce	cherichia Coliform Bacteria	ct/100 mL	0	Maximum Acceptable Concentration
	al Coliform Bacteria	ct/100 mL	0	Maximum Acceptable Concentration

Based upon Saskatchewan's Drinking Water Quality Standards and Objectives
An Interim Maximum Acceptable Concentration has been set by Health Canada with a proposed revision of 0.005 mg/L level (5 µg/L)

³ An *Interim Maximum Acceptable Concentration* has been set by Health Canada

mg/L = milligrams per litre : g/L = micrograms per litre

[:] S/cm = microsiemens per centimeter ct/100 mL = count per 100 milliliters

Please note that there are three terms commonly used when referencing drinking water quality guidelines and objectives:

(1) Maximum Acceptable Concentration (MAC)

Maximum acceptable concentrations have been established for certain substances that are known or suspected to cause adverse effects on health. Each MAC has been derived to safeguard health assuming lifelong consumption of drinking water containing the substance at that concentration.

(2) Interim Maximum Acceptable Concentration (IMAC)

For those substances for which there are insufficient toxicological data to derive a MAC with reasonable certainty, interim values are recommended, taking into account the available health related data but employing a larger safety factor to compensate for the additional uncertainties involved.

(3) Aesthetic Objective (AO)

Aesthetic objectives (AO) apply to certain substances or characteristics of drinking water that can affect its acceptance by consumers or interfere with practices for supplying good-quality water. For certain parameters, both AO and health related guidelines (e.g., MAC) have been derived. Where only AO are specified, these values are below those considered to constitute a health hazard.